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#### Federal Communications Commission

WASHINGTON, D.C.

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In the Matter of	)	MAY 1 7 2000
Review of the Commission's	)	MM Docket No. 00-39
Rules and Policies Affecting the Conversion	)	
to Digital Television	)	

# COMMENTS OF UNIVISION COMMUNICATIONS INC.

Scott R. Flick Lara Strayer Meisner David S. Konczal

Its Attorneys

SHAW PITTMAN 2001 Pennsylvania Avenue, N.W. Suite 400 Washington, D.C. 20006 (202) 659-3494

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#### **SUMMARY**

Univision Communications Inc. ("Univision"), the nation's most-watched Spanish language television broadcaster, is the major source of news and information for America's Hispanic community, 84% of which is located in urban areas. In November of 1999, after observing tests of digital television ("DTV") comparing the capabilities of 8-VSB and Coded Orthogonal Frequency Division Multiplexing ("COFDM") modulation technologies, Univision filed a Petition for Expedited Rulemaking ("Petition") with the Commission seeking authority for broadcasters to utilize COFDM modulation in their DTV broadcasts. Since that time, additional testing has made it even more apparent that the exclusive use of 8-VSB technology raises grave concerns for broadcasters, like Univision, whose audiences are located mainly in dense urban areas where multipath interference is rampant.

While the inability of 8-VSB to provide reliable reception of DTV in urban areas will adversely affect a substantial portion of the American viewing audience, Hispanics and other ethnic and racial minorities that are disproportionately located in urban areas will be particularly harmed. In this regard, the ability of COFDM to overcome urban obstacles makes it an excellent modulation choice for broadcasters with heavily urban audiences. While proponents of exclusive reliance on the 8-VSB standard argue that 8-VSB reception technology will improve with time, the Commission and broadcasters cannot afford to stake the future of DTV on such an assumption. First impressions weigh heavily with consumers, and if their first impression of DTV is that it does not work in urban areas, it is unlikely that they will consider investing again in a DTV receiver anytime soon. As a result, even if 8-VSB receiver technology does slowly

improve, it will be a long time before it is able to overcome the negative perception of DTV that will be created in the next few years by exclusive reliance on 8-VSB modulation.

In contrast to a petition requesting similar relief that was filed by Sinclair Broadcast Group, Inc. ("Sinclair"), Univision's Petition focused less on the obvious technical flaws of 8-VSB, and instead raised critical issues about mandating a modulation standard that places urban minority viewers at a severe disadvantage in being able to receive the benefits of digital television. While the Commission dismissed Sinclair's petition, citing the hope that 8-VSB technology will eventually improve, it did not attempt to address the disparate impact on urban minority viewers of relying on that hope. In fact, the Commission has yet to act on Univision's Petition, which has now been pending at the Commission for six months. Univision therefore urges in these Comments that the Commission utilize this proceeding to modify the DTV standard to allow broadcasters the flexibility to use COFDM in their digital transmissions.

At the very least, the Commission must address in this proceeding how its continued reliance on 8-VSB modulation technology is consistent with its statutory mandate under the Communications Act of 1934 to make broadcast service "available, so far as possible, to all people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex . . . ." By continuing to blindly rely on promises from those with a financial interest in 8-VSB that "miracle chips" will soon resolve 8-VSB's reception flaws, even though COFDM technology is available and working now, the Commission is abdicating its responsibility to ensure that all Americans, not just those residing in non-urban areas, continue to have access to news, information, and other broadcast programming in the digital world.

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### COMMENTS OF UNIVISION COMMUNICATIONS INC.

Univision Communications Inc. ("Univision"), the nation's most-watched Spanish language television broadcaster, by its attorneys, hereby submits these comments on the Commission's Notice of Proposed Rule Making ("NPRM") in this proceeding regarding the transition of the television industry from analog to digital technology. In Univision's view, the single greatest impediment to the successful transition to digital television ("DTV") is the Commission's continued exclusive reliance on the 8-VSB digital modulation technology incorporated into the Advanced Television Systems Committee ("ATSC") DTV standard. As an ever-increasing number of broadcasters and technologists have found, reception of 8-VSB DTV signals is extremely difficult in urban and other areas where complex multipath interference conditions exist. Because this failure of 8-VSB technology poses a severe threat to Univision's ability to serve its largely urban Hispanic viewing audience, Univision filed a "Petition for Expedited Rulemaking" ("Petition") in November 1999 seeking flexibility for broadcasters to use Coded Orthogonal Frequency Division Multiplexing ("COFDM") digital modulation

technology as an alternative to 8-VSB modulation. In contrast to a petition requesting similar relief that was filed a month earlier by Sinclair Broadcast Group, Inc. ("Sinclair"), Univision's Petition focused less on the obvious technical flaws of 8-VSB, and instead raised critical issues about mandating a modulation standard that places urban minority viewers at a severe disadvantage in being able to receive the benefits of digital television. While the Commission dismissed Sinclair's petition, stating the FCC's hope that 8-VSB technology will eventually improve, it did not attempt to address the disparate impact on urban minority viewers of relying on that hope. The Commission has not acted on Univision's Petition, which has now been pending at the Commission for six months. In these Comments, Univision urges the Commission to utilize this proceeding to modify the DTV standard to allow broadcasters the flexibility to use COFDM in their digital transmissions.

As Univision noted in its Petition, unless the Commission incorporates COFDM technology into the current DTV standard, the future of free, over-the-air broadcast service for America's millions of minority viewers residing in urban areas is in dire jeopardy. As a Spanish-language broadcaster with virtually all of its viewers residing in major urban areas, Univision stands to lose more than most broadcasters if the Commission requires exclusive use of the 8-VSB standard. The Commission, however, has yet to even acknowledge Univision's Petition. The Commission's lack of concern for the critical issues raised by Univision is particularly surprising considering that the basic underpinning of the Commission's major broadcast

<sup>&</sup>lt;sup>1</sup> Univision Communications Inc., <u>Petition for Expedited Rulemaking</u>, filed November 17, 1999 ("Petition"). A copy of Univision's Petition is attached hereto as Appendix A. The Petition discusses in detail the case for COFDM, as well as the harm that exclusive reliance on 8-VSB will cause to the Hispanic and other minority communities. Thus, rather than attempting to reiterate all of the content of the Petition in these Comments, Univision hereby incorporates by reference the text of its Petition into these Comments.

initiatives over the past year -- the new Equal Employment Opportunity rules, new multiple ownership rules, Low Power FM Radio, and Class A low power television -- is the importance of broadcasting and the availability of a diversity of broadcast signals to America's minority communities.

At the very least, the Commission must address in this proceeding how its continued reliance on 8-VSB modulation technology is consistent with its statutory mandate to ensure that broadcast services are available to all Americans, regardless of race, color, or national origin. In the Telecommunications Act of 1996, Congress amended Section 1 of the Communications Act "to make it clear that the Commission's mandate is to regulate interstate and foreign communications services so that they are 'available, so far as possible, to all people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex ...."

By continuing to rely on promises from those with a financial interest in 8-VSB that "miracle chips" will soon resolve 8-VSB's reception flaws, even though COFDM technology is available and working now, the Commission is abdicating its responsibility to ensure that all Americans, not just those residing in non-urban areas, have access to news, information, and other broadcast programming in the digital world.

#### **BACKGROUND**

<u>Univision Communications Inc.</u> Univision Communications Inc. owns the Spanish-language Univision Network as well as Univision Television Group, Inc. ("UTGI"). The Univision Network is available to 93% of all Hispanic households, and is the fifth largest full-

<sup>&</sup>lt;sup>2</sup> See Review of the Commission's Broadcast and Cable Equal Employment Opportunity Rules and Policies and Termination of the EEO Streamlining Proceeding, Report and Order, FCC 00-20 (Feb. 2, 2000) ((quoting 47 U.S.C. § 151, as amended (1997) (italicized clause added by the 1996 Act)).

time television network, delivering larger prime time audiences than all broadcast and cable networks except ABC, CBS, NBC, and Fox.<sup>3</sup> The Univision Network is the primary source of news and entertainment for America's 31.5 million Hispanics. The twenty most widely watched programs in U.S. Hispanic households are aired on the Univision Network.<sup>4</sup> UTGI operates Spanish-language television stations in fifteen of the largest Hispanic markets, including nine of the top ten.<sup>5</sup>

Univision is committed to providing digital television to the Hispanic community and looks forward to the day when free, over-the-air DTV is available to all Americans. Univision has filed DTV construction permit applications for all of its owned and operated full-power stations, and has filed applications for displacement channels for its low power television stations that are being displaced from their current channels by the implementation of digital broadcasting.

The 8-VSB/COFDM Debate. In 1996, the Commission adopted the ATSC DTV standard, including 8-VSB modulation technology, based upon the recommendations of its

<sup>&</sup>lt;sup>3</sup>Nielsen Hispanic Television Index and Nielsen Television Index (Adults 18-49, September 1999-March 2000),

<sup>&</sup>lt;sup>4</sup>Nielsen Hispanic Television Index (October 1998-September 1999).

<sup>&</sup>lt;sup>5</sup>Univision's full-power stations include KDTV(TV), San Francisco, California; KFTV(TV), Hanford (Fresno), California; KMEX-TV, Los Angeles, California; KTVW-TV, Phoenix, Arizona; KUVI-TV, Bakersfield, California; KUVN(TV), Garland (Dallas), Texas; KUVS(TV), Modesto (Sacramento), California; KWEX-TV, San Antonio, Texas; KXLN-TV, Rosenberg (Houston), Texas; WGBO(TV), Joliet (Chicago), Illinois; WLTV(TV), Miami, Florida; and WXTV(TV), Paterson (New York), New Jersey. Univision's LPTV stations include K30CE, Austin, Texas; KABE-LP, Bakersfield, California; KDTV-LP, Santa Rosa, California; KUVE-LP, Tucson, Arizona; KUVN-LP, Fort Worth, Texas; W47AD, Hartford, Connecticut; and WXTV-LP, Philadelphia, PA.

advisory committee, the Advisory Committee on Advanced Television Services ("ACATS").<sup>6</sup>
The tests conducted by ACATS, however, did not focus upon ease of reception of DTV signals with simple indoor antennas. Rather, the ACATS testing focused on fixed, residential television service received through a 30-foot rooftop or tower-mounted directional antenna. Further, ACATS emphasized duplicating the existing coverage areas enjoyed by analog NTSC signals, rather than replicating NTSC's reliable indoor reception. Finally, the ACATS testing never accounted for dynamic multipath interference, focusing instead on static multipath conditions.<sup>7</sup>
In short, ACATS modeled its tests on a rural environment, and failed to consider the reception limitations imposed on viewers in an urban environment.

While ACATS briefly considered COFDM as a modulation standard, it concluded in 1994 that COFDM was not yet ready for testing. Since then, significant advances have been made in COFDM technology while the development of 8-VSB has stagnated (or, worse yet, reached its natural limits). Countries throughout the world have now adopted COFDM as their DTV modulation standard. One DTV standard incorporating COFDM technology, DVB-T, has been adopted in Australia, Belgium, Croatia, the Czech Republic, Denmark, Finland, France,

<sup>&</sup>lt;sup>6</sup> See Advanced Television Systems and Their Impact on the Existing Television Broadcast Services, Fourth Report and Order, 11 FCC Rcd 17771 (1996) ("Fourth Report and Order"). The ATSC DTV standard is now incorporated by reference at Section 73.682(d) of the Commission's Rules. 47 C.F.R. § 73.682(d).

<sup>&</sup>lt;sup>7</sup>Although ACATS mentions in its Final Technical Report that it tested 8-VSB under "flutter" conditions, this is not the same as the complex, dynamic multipath conditions common in urban areas. *See* Advisory Committee on Advanced Television Service, <u>Final Technical Report</u>, at ¶ 5.2.3 (Oct. 31, 1995); *see also* Advisory Committee on Advanced Television Service, <u>ATV System Recommendation</u>, sections 7-8 (Feb. 24, 1993) (indicating that tests conducted in 1991 and 1992 accounted only for static multipath conditions).

<sup>&</sup>lt;sup>8</sup> Final Report and Recommendation of the Advisory Committee on Advanced Television Service, November 28, 1995, at para. II. G.

Germany, Greece, Hungary, India, Ireland, Italy, Lithuania, the Netherlands, New Zealand, Norway, Poland, Portugal, Singapore, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, and the United Kingdom. Trials of DVB-T are also now underway in Hong Kong, Brazil, Cuba, Chile, China, Israel, and Taiwan. To the Netherlands, New Zealand, New Zealand, Norway, Poland, Portugal, Singapore, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, and the United Kingdom.

In June 1999, Univision observed tests conducted by Sinclair comparing the abilities of 8-VSB and COFDM to provide reliable reception of a DTV signal with a simple indoor antenna. These tests demonstrated that the ability of COFDM to overcome the effects of dynamic multipath interference under urban viewing conditions far surpasses that of 8-VSB. Univision is not alone in reaching this conclusion. In the summer of 1999, concern among broadcasters grew as to the reliability of 8-VSB technology. In response to this concern, the Commission's Office of Engineering and Technology ("OET") issued a report in September 1999 that acknowledged the benefits of COFDM but nonetheless concluded that the 8-VSB standard should not be replaced. The OET did not address whether broadcasters should be allowed the flexibility to use either COFDM or 8-VSB, only whether the Commission should abandon 8-VSB entirely. In October 1999, based on its comparative studies of COFDM and 8-VSB, Sinclair filed its petition urging the Commission to allow broadcasters the flexibility to transmit their DTV signals using COFDM. In November 1999, based on its observations of Sinclair's tests, Univision filed its "Petition for Expedited Rulemaking" also urging the Commission to allow broadcasters to use

<sup>9</sup> www.dvb.org

<sup>&</sup>lt;sup>10</sup> Id.

<sup>&</sup>lt;sup>11</sup> <u>DTV Report on COFDM and 8-VSB Performance</u>, Office of Engineering and Technology, Federal Communications Commission, FCC/OET 99-2 (September 30, 1999).

<sup>&</sup>lt;sup>12</sup> Sinclair Broadcast Group, Inc., <u>Petition for Expedited Rulemaking</u> (filed October 8, 1999) ("Sinclair Petition").

COFDM. In its Petition, Univision focused upon the impact that a DTV standard incapable of delivering a reliable signal in urban areas would have on America's minority communities.

In February 2000, the Commission dismissed Sinclair's Petition, concluding that (1) allowing more than one DTV standard would harm consumers; (2) developing a COFDM standard would delay the DTV transition; and (3) the problems identified by Sinclair were just shortcomings of early DTV receivers that chip-set manufacturers are already working to solve. The Commission did commit, however, to consider the adequacy of the modulation standard in the present proceeding. While the Commission dismissed Sinclair's Petition, Univision's remains pending. As discussed above, the Commission has never even acknowledged Univision's Petition, let alone addressed the impact 8-VSB will have on America's minority viewers of free, over-the-air television.

Since the dismissal of Sinclair's Petition, even more broadcasters have voiced their concern over the inadequacy of the current DTV standard. According to the trade press, NBC has now also conducted tests of 8-VSB and COFDM that confirm Sinclair's earlier findings. 

The Association for Maximum Service Television ("MSTV") has decided to conduct studies of 8-VSB and COFDM as well. 

Finally, the ATSC itself, perhaps the most ardent advocate of 8-VSB, has now formed a task force to assess the performance of the current DTV standard.

<sup>&</sup>lt;sup>13</sup> See Letter from Magalie Roman Salas, Secretary, FCC, to Martin R. Leader, Counsel for Sinclair Broadcast Group, Inc., FCC 00-35 (Feb. 4, 2000) ("Sinclair Petition Ruling").

<sup>&</sup>lt;sup>14</sup> <u>Id.</u> at 4.

<sup>&</sup>lt;sup>15</sup> Bill McConnell, <u>The Real Digital Divide</u>, Broadcasting & Cable (Feb. 14, 2000), at 19.

<sup>&</sup>lt;sup>16</sup> <u>Digital Technology Notes</u>, Public Broadcasting Report (April 21, 2000).

<sup>&</sup>lt;sup>17</sup> <u>ATSC Forms Task Force to Study RF System Performance</u>, Communications Daily, Vol. 20, No. 56 (March 22, 2000).

Notwithstanding this rapidly growing concern, broadcasters and urban viewers are being prevented by the FCC from implementing the obvious and already-available solution. Despite continued promises of an 8-VSB "miracle chip," the reception difficulties of 8-VSB in urban areas persist. It increasingly appears that the term "miracle" is not meant to describe the capabilities of this vaporware chip, but instead indicates that it will require divine intervention for such a chip to be created. Even if efforts to refine 8-VSB are eventually successful -- a highly optimistic assumption -- such development will inevitably take longer than implementation of the already well-developed COFDM technology. Worse yet, if it is eventually determined that poor urban reception is an incurable flaw of the 8-VSB standard, the digital revolution will never reach the televisions of urban minority viewers.

I. The Commission-Mandated 8-VSB Modulation Standard Does Not Allow Reliable Reception of DTV Signals in Urban Areas, Thereby Disproportionately Impacting America's Hispanic and Other Minority Communities

Studies conducted by Sinclair and, according to the trade press, NBC, <sup>18</sup> indicate that the current modulation standard is simply inadequate. As Univision has observed, in the complex multipath conditions common in urban areas, 8-VSB modulation technology does not allow for reliable over-the-air reception of DTV signals with a simple indoor antenna. With a staggering **84 percent of all Hispanic households being located in urban areas**, <sup>19</sup> there is no question as to who will bear the brunt of the Commission's decision to "stay the course" with the current DTV standard. If broadcasters are forced to rely solely on 8-VSB, the future of free, over-the-air

<sup>&</sup>lt;sup>18</sup> Bill McConnell, <u>The Real Digital Divide</u>, Broadcasting & Cable (Feb. 14, 2000), at 19.

<sup>&</sup>lt;sup>19</sup> This figures is based on the 1999 Nielsen Television Index and the 1999 Nielsen Hispanic Television Index, which define "urban area" as a metropolitan area that has a population in excess of 85,000 people.

television for America's Hispanics and other minority television viewers that reside in urban areas is in serious doubt.

The real world implications of 8-VSB's shortcomings are that consumers in urban areas will either have to purchase and install a rotating outdoor antenna or subscribe to cable or satellite television in order to receive DTV signals. The inadequacies of these solutions are discussed at length in Univision's Petition<sup>20</sup> and are summarized below. Also, as Univision demonstrated in its Petition, America's Hispanic television viewers are more likely than other viewers to reside in multiple dwelling units ("MDUs") where outdoor antennas are not feasible, and to rely on over-the-air reception, as opposed to cable or satellite television, for their programming.<sup>21</sup> Thus, the possible "solutions" to 8-VSB reception difficulties discussed below will be particularly burdensome for America's Hispanic television viewers.

## A. Outdoor Antennas Are Not a Viable Solution to 8-VSB Reception Difficulties, Particularly for Hispanic Viewers

American consumers have become accustomed to the ease of reception of NTSC signals with a simple indoor antenna. With the current DTV standard, however, consumers in urban areas that do not subscribe to cable or satellite will have to purchase and install an outdoor antenna in order to receive DTV signals. Even with an outdoor antenna, the ability of 8-VSB to deliver a reliable signal is suspect, with an NBC representative estimating that only 50 percent of current NTSC viewers will be able to receive DTV with an outdoor antenna.<sup>22</sup>

Not only does the need to purchase an outdoor antenna add an additional cost to receiving "free" DTV, it also vastly reduces the viewing options to which consumers have become

<sup>&</sup>lt;sup>20</sup> See Appendix A at 9-15.

<sup>&</sup>lt;sup>21</sup> See Appendix A at 15-19.

<sup>&</sup>lt;sup>22</sup> Bill McConnell, <u>The Real Digital Divide</u>, Broadcasting & Cable (Feb. 14, 2000), at 22.

accustomed. For example, because the outdoor antenna must be highly directional in order to overcome the effects of multipath, it must be reoriented each time a viewer wants to watch a different station in a market (unless all of the stations in the market happen to be located at the same site). Thus, a consumer will have to purchase an outdoor antenna with rotating capability to direct the antenna towards each station in the market. In a household with more than one television set, a separate rotating antenna will be required for each television set in the household in order to watch different stations on different sets at the same time. In addition, because a rotating antenna does not rotate instantaneously, "channel surfing" will be but a wistful memory. Similarly, since a television set will only be able to receive a signal from the station on which the antenna is focused, picture-in-picture and the ability to tape one channel while watching another will both fall victim to the digital transition. Even taping a program for later viewing will become a chore, as the antenna will need to be preset to the proper rotational position for the station to be recorded when the timer activates the VCR's record function. Rather than a technological revolution, consumers will view DTV as nothing but an expensive step backwards.

For the 25 percent of all American households<sup>23</sup> and the **41.9 percent** of all Hispanic households<sup>24</sup> that reside in MDUs, the prospect of using an outdoor antenna is even more daunting. Such viewers typically have no way of running a signal cable to a rooftop antenna,

<sup>&</sup>lt;sup>23</sup> This figure is based on the <u>American Housing Survey for the United States 1997</u>, produced by the U.S. Department of Housing and Urban Development and the U.S. Department of Commerce. The Commission has also noted that, as of 1990, there were almost 31.5 million households in MDUs in the U.S., comprising approximately 28 percent of the total housing units nationwide. *See Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, Fifth Annual Report, 13 FCC Rcd 24284, 24364 (December 23, 1998).

<sup>&</sup>lt;sup>24</sup> This figure is based on the <u>American Housing Survey for the United States 1997</u>, produced by the U.S. Department of Housing and Urban Development and the U.S. Department of Commerce.

much less powering the antenna's rotation motor, and few would be willing to incur the costs of such an installation anyway. Moreover, in markets where the DTV stations are not collocated, a single roof-top antenna will not suffice. Because residents of different units will want to watch different stations at the same time, the building owner would have to install a rotating antenna for each unit in the MDU, requiring literally hundreds of antennas on the roof of each MDU.

Even in markets where most of the DTV stations are collocated, the transmitters of Spanish-language stations frequently are not collocated with those of the English-language stations. In such a situation, it is unlikely that a building owner will install a separate rotating antenna for each unit in a building just to enable the residents to view the one or two Spanish-language stations in the market. Rather, one rooftop antenna oriented towards the collocated English-language stations is the more likely scenario, thereby depriving Hispanic residents of free, over-the-air Spanish-language programming.

# B. Requiring Consumers to Rely on Cable or Satellite Is Not a Viable Solution to 8-VSB Reception Difficulties, Particularly for Hispanic Consumers

Because outdoor antennas are not a viable solution for 8-VSB's flaws, the only alternative for viewers in the digital era is a subscription to cable or satellite television.

Requiring consumers to subscribe to cable or satellite, however, runs counter to one of the Commission's stated goals in promoting DTV -- "to preserve and promote *free*, *universally available*, local broadcast television in a digital world." According to Nielsen estimates, over 20 percent of all television households and 40 percent of Hispanic households still rely on

<sup>&</sup>lt;sup>25</sup> See <u>Advanced Television Systems and Their Impact on the Existing Television</u> <u>Broadcast Services</u>, Memorandum Opinion and Order on Reconsideration of the Fifth Report and Order, 13 FCC Rcd 6860, 6861 (1998).

free, over-the-air television reception for their programming.<sup>26</sup> To tell these viewers that DTV is not for them flies in the face of the Communications Act and the Commission's longstanding policies promoting broadcast service to all Americans.

In addition, it is far from settled that cable or satellite television providers will actually carry the DTV signals of local broadcasters during the DTV transition period, or that they will carry all of the program signals aired by broadcasters who are engaged in DTV "multicasting." There has also been a continuing effort on the part of cable systems to downconvert DTV signals to lower resolutions, thereby robbing viewers of the chief benefit of DTV. In short, why would urban viewers purchase a digital television if it meant that they now had to subscribe to cable to receive any programming at all, and the picture quality is barely an improvement over their existing NTSC televisions? Further, given cable companies' past unwillingness to carry minority-oriented stations, carriage of the DTV signals of Spanish-language broadcasters is far from assured, particularly without a Commission mandate that cable operators do so.<sup>27</sup>

Finally, it is simply poor public policy to rely on alternative distribution systems to deliver local television to American viewers. The Emergency Alert System, for example, cannot depend on the populace having a cable subscription in order to receive emergency information. Requiring broadcasters to rely on cable and satellite to deliver their programming to viewers undercuts decades of governmental efforts to promote free, over-the-air television.<sup>28</sup>

<sup>&</sup>lt;sup>26</sup> These figures are based on the 1999 Nielsen Television Index.

Univision has discussed the intransigence of cable companies when it comes to the carriage of Spanish-language stations in its Reply Comments in the digital must-carry proceeding. *See* Reply Comments, Univision Communications Inc., <u>In the Matter of Carriage of the Transmissions of Digital Television Broadcast Stations</u>, CS Docket No. 98-120, filed December 22, 1998, at 6-7.

<sup>&</sup>lt;sup>28</sup> See, e.g., <u>Turner Broadcasting System, Inc. v. FCC</u>, 114 S. Ct. 2445, 2445 (1994) (stating that the objective of Congress in passing must-carry legislation was to "preserve access Footnote continued on next page

### C. For Many Viewers, the End of the DTV Transition Will Mean the End of Free Television

During the DTV transition, viewers in urban areas will still have access to over-the-air analog television signals. However, at the end of the transition, when analog signals cease to exist, the millions of viewers who cannot afford a DTV set will have to purchase a converter box to continue receiving programming on their analog sets. With 8-VSB's reception difficulties in urban areas, however, these consumers also will have to purchase and install an outdoor antenna to receive the over-the-air DTV signal to convert to analog. For the 34.2 percent of Hispanic households that earn less than \$19,000<sup>29</sup> and the 41.9 percent of Hispanic households<sup>30</sup> that reside in MDUs, this option will be either too expensive or simply impossible. Thus, the end of the DTV transition will be the end of free television for millions of American viewers.

Footnote continued from previous page

to free television programming for the 40 percent of Americans without cable"); <u>Satellite Delivery of Network Signals to Unserved Households for Purposes of the Satellite Home Viewer Act</u>, Report and Order, 14 FCC Rcd 2654, 2659 (1999) (noting that "The Satellite Home Viewer Act limits the compulsory copyright license to 'unserved' households, reflecting Congress' intent to protect the role of local broadcasters in providing free, over-the-air television to American families."); <u>Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service</u>, Fifth Report and Order, 12 FCC Rcd 12809, 12820 (1997) ("We expect that the fundamental use of the 6 MHZ DTV license will be for the provision of free, over-the-air television service.").

<sup>&</sup>lt;sup>29</sup> This figure is based on the 1999 Nielsen Television Index and the 1999 Nielsen Hispanic Television Index. *See also* John Reed & Roberto R. Ramirez, <u>The Hispanic Population in the United States: March 1997 (Update)</u>, Census Bureau, U.S. Department of Commerce (issued July 1998) (noting that, in 1996, one-quarter of Hispanic families in America were living below the poverty level).

<sup>&</sup>lt;sup>30</sup> This figure is based on the <u>American Housing Survey for the United States 1997</u>, produced by the U.S. Department of Housing and Urban Development and the U.S. Department of Commerce.

# II. Despite the Consumer Electronics Industry's Promises, Solutions to 8-VSB Reception Difficulties Have Not Surfaced

The consumer electronics industry has been on notice for more than a year that the current DTV modulation standard cannot support over-the-air reception in urban areas. Despite these warnings, there has been little if any progress in solving the problem. Broadcasters and American consumers are in exactly the same position they were a year ago -- facing the demise of free, over-the-air television, particularly in urban areas, because of an unreliable modulation standard.

Perhaps most alarming, the consumer electronics industry has been unwilling to admit and address 8-VSB's reception problems for fear that consumers will cease buying what are basically defective DTV receivers. In its Opposition to Sinclair's Petition, the Consumer Electronics Association ("CEA") defiantly stated that "[t]he technical truth, however, is that there is nothing 'wrong' with the 8-VSB transmission standard." CEA then stated that dismissing Sinclair's Petition would enable DTV equipment manufacturers "to focus on . . . continuing to integrate improvements and innovations, including advances maximizing indoor reception performance." Unfortunately for the American consumer, the Commission accepted CEA's arguments and concluded that Sinclair's Petition "has done no more than to demonstrate a shortcoming of early DTV receiver implementation" and that DTV chip-set manufacturers "are aware of these problems and are aggressively taking steps to resolve the multipath handling limitations exhibited in some first-generation DTV receivers."

<sup>&</sup>lt;sup>31</sup> Consumer Electronics Manufacturers Association, <u>Opposition to Petition for Expedited Rulemaking and Motion for Its Immediate Dismissal</u>, at 4 (filed October 14, 1999) ("CEA Opposition").

<sup>&</sup>lt;sup>32</sup> <u>Id.</u> at 19.

<sup>&</sup>lt;sup>33</sup> Sinclair Petition Ruling at 4.

The Commission's blind reliance on chip manufacturers and the consumer electronics industry to solve DTV reception problems is baffling. Chip manufacturers and the consumer electronics industry have produced nothing but press releases over the past year, with no apparent progress in making 8-VSB a viable technology. With their main revenue stream continuing to come from the sale of analog televisions, the consumer electronics industry is in no rush to make DTV a more attractive option to consumers. While the Commission's support of the current DTV standard is certain to prolong indefinitely the sale of analog televisions, American television viewers are left wondering how long the Commission will allow them to be held hostage by an inferior technology when COFDM, a proven and reliable technology implemented worldwide, works now.

III. The Commission Must Address How Its Reliance on 8-VSB Modulation Technology Is Consistent With Its Statutory Mandate to Facilitate Broadcast Service to the Hispanic and Other Minority Communities

The complex multipath conditions which plague 8-VSB exist predominantly in urban areas. As discussed above, this means that the Commission's continued reliance on the 8-VSB modulation standard disproportionately burdens those racial and ethnic groups that live predominantly in urban areas, such as Hispanics.

A. The Commission Has a Statutory Mandate to Facilitate Broadcast Service to Minority Communities and Has Consistently Tried to Promote Diversity Among Broadcasters for the Benefit of Minority Communities

In the Telecommunications Act of 1996, Congress amended Section 1 of the Communications Act "to make it clear that the Commission's mandate is to regulate interstate and foreign communications services so that they are 'available, so far as possible, to all people of the United States, without discrimination on the basis of race, color, religion, national origin,

or sex . . . . "34 In its recent decision promulgating new EEO rules, the Commission interpreted this statutory mandate in the following manner:

This recent amendment . . . amplifies the Commission's general public interest mandate to ensure that broadcasting and other programming services serve the needs and interests of all sectors of the community, and indicates more specifically that such services shall be provided to all Americans without discrimination on the basis of race or any other suspect classification.<sup>35</sup>

In additional to its explicit recognition of this statutory mandate, the Commission has based many of its policies regarding the broadcast industry on the importance of broadcasting to minority communities and the need to promote diversity. For example, while the Commission recently relaxed its broadcast multiple ownership rules, it nonetheless noted that it "has recognized the importance of promoting new entry into the broadcast industry as a means of promoting competition and diversity." The recent Low Power FM and Class A low power television proceedings were also geared towards increasing diversity in the broadcast marketplace to ensure that all communities are adequately served by free, over-the-air broadcasting. In addition, Congress continues to recognize the importance of broadcasting to

<sup>&</sup>lt;sup>34</sup> See Review of the Commission's Broadcast and Cable Equal Employment Opportunity Rules and Policies and Termination of the EEO Streamlining Proceeding, Report and Order, FCC 00-20 (Feb. 2, 2000) ((quoting 47 U.S.C. § 151, as amended (1997) (italicized clause added by the 1996 Act)).

<sup>&</sup>lt;sup>35</sup> Id. at ¶ 48.

<sup>&</sup>lt;sup>36</sup> Review of the Commission's Regulations Governing Television Broadcasting; Television Satellite Stations Review of Policy and Rules, Report and Order, 14 FCC Rcd 12903, ¶ 13 (1999).

<sup>&</sup>lt;sup>37</sup>Creation of Low Power Radio Service, Report and Order, MM Docket No. 99-25, RM-9208, RM-9242, ¶ 4 (Jan. 27, 2000) ("Our establishment of a low power radio service consisting of two classes operating at maximums of 100 watts and 10 watts will allow licensees to serve their local communities, and will permit a greater number of new stations to be authorized, fostering a diversity of new voices on the airwaves."); Establishment of a Class A Television Service, Report and Order, MM Docket No. 00-10, ¶ 1(April 4, 2000) ("LPTV Footnote continued on next page

minority communities, most recently finding in the Community Broadcasters Protection Act that "[i]t is in the public interest to promote diversity in television programming such as that currently provided by low-power television stations to foreign-language communities." 38

B. The Commission Has Never Addressed the Conflict Between Its Continued Reliance on 8-VSB Technology and Its Statutory Mandate to Ensure That Broadcast Service Is Available to All Americans, Regardless of Race, Color, or National Origin

While the Commission's consideration of the technical shortcomings of 8-VSB in this proceeding is encouraging, the Commission cannot continue to hide from the socioeconomic impact of its exclusive reliance on 8-VSB technology. The Commission has never addressed nor asked for comment on the specific issues raised by Univision in its Petition, namely how the Commission's continued reliance on the 8-VSB standard can coexist with its statutory mandate to ensure that broadcast services are made available to Americans "without discrimination on the basis of race, color, . . . [or] national origin." Similarly, the Commission has not addressed how reliance on 8-VSB is consistent with its goals to promote broadcast diversity.

As it stands now, the Commission-mandated DTV modulation standard cannot provide a reliable signal in urban areas, and certainly cannot do so with the simple indoor antenna that many urban dwellers are forced to use. If DTV cannot be received on an indoor antenna in an

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stations are owned by a wide variety of licensees, including minorities and women, and often provide 'niche' programming to residents of specific ethnic, racial, and interest communities. The actions we take today will facilitate the acquisition of capital needed by these stations to allow them to continue to provide free, over-the-air programming, including locally-originated programming, to their communities . . . . [O]ur action today is consistent with our fundamental goals of ensuring diversity and localism in television broadcasting.").

<sup>&</sup>lt;sup>38</sup> Community Broadcasters Protection Act, § 5008(b)(5).

<sup>&</sup>lt;sup>39</sup> 47 U.S.C. § 151.

urban setting, then it will not be received at all by the many millions of Hispanic and other minority television viewers residing disproportionately in urban areas. Such a path will lead to a nation of digital "haves" and "have nots." This result is particularly frustrating when it is not an inherent result of limitations in digital technology, but of government fiat in choosing a flawed modulation standard when a fully functional alternative is available.

In this regard, it is worth noting that even if consumer electronics manufacturers are correct that 8-VSB can be improved, unless it can be improved to achieve the near-immunity to dynamic multipath interference possessed by COFDM, an improved 8-VSB will continue to leave urban viewers at a disadvantage. Moreover, if the goal of manufacturers is to make 8-VSB as functional in urban environments as COFDM, then there is little reason not to merely adopt COFDM now and avoid further delay. The Commission's optimism that 8-VSB can be refined to perform as well as COFDM is akin to the air force continuing to develop biplanes in the hope that they someday might be able to perform as well as jets that are already available.

Even if the Commission were correct in its assumption that modifying the modulation standard will delay the transition to DTV, its willingness to sacrifice service to urban populations in order to speed the transition to DTV in the suburbs relegates urban viewers to the status of roadkill on the digital highway. Such a result is not only poor policy, but a violation of the Commission's statutory mandate. By not addressing the impact of the current DTV standard on America's minority viewers and blindly relying on the promises of consumer electronics manufacturers, the Commission has failed America's Hispanic and other minority television viewers while abdicating its statutory responsibilities.<sup>40</sup>

<sup>&</sup>lt;sup>40</sup> Individual Commissioners have also expressed their views on the need to extend digital technology to all Americans. For example, Chairman Kennard has stated that "[m]y job as Footnote continued on next page

Finally, the Commission's efforts in its EEO and other proceedings to ensure that broadcast content is as diverse as the communities that broadcast stations serve, will fall far short of their goal if urban residents are unable to view their local broadcast stations. If the 40 percent of Hispanic households and millions of other urban residents that currently rely on over-the-air television cannot receive a reliable DTV signal, the Commission's efforts to promote diversity among broadcasters will be largely wasted. The Commission's first priority must be to ensure that all Americans have access to broadcast programming. Only once that is accomplished can the Commission even begin to effectively promote broadcast diversity for all Americans.

### IV. The Commission Must Allow Broadcasters the Flexibility to Use COFDM Technology as an Alternative to 8-VSB

Despite the overwhelming evidence that 8-VSB does not work in urban environments, broadcasters and urban viewers are forced to carry on with the DTV transition while saddled with a modulation standard designed for suburban and rural conditions. While Univision appreciates the Commission's consideration of the modulation standard in this proceeding, the time for rumination and reflection is past. Swift action to authorize the use of COFDM and to incorporate it into the DTV standard is required now if the DTV transition is to be rescued.

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chairman of the FCC is to make sure that consumers benefit from the digital age. I want all Americans -- and I mean all Americans -- to be able to use these amazing new technologies . . . "); Remarks of William E. Kennard, Chairman, FCC, before the Variety/Schroders Media Conference (March 24, 1999) (emphasis added); see also William E. Kennard, Chairman, FCC, Statement of FCC Chairman William Kennard on Adopting Final DTV Allotments and Rules (Feb. 18, 1998) ("I believe that the adoption of a core DTV spectrum of channels 2-51 is necessary to serve our ultimate goal of ensuring the success of the digital transition so that all American consumers will see the benefits of digital television."); Susan Ness, Commissioner, FCC, Remarks before MSTV'S DTV Implementation Seminar (May 27, 1998) ("I am a believer in digital television. I will continue to take steps to ensure that consumers reap the benefits from this historic transition. Broadcasters have the opportunity to reinvent television. I believe that we Footnote continued on next page

#### A. COFDM Is a Proven and Reliable Alternative to 8-VSB

Studies conducted by Sinclair and others<sup>41</sup> confirm that COFDM provides a reliable DTV signal in the complex multipath conditions common in urban environments, while 8-VSB does not. Moreover, the existing successful use of COFDM in dozens of countries provides assurance that COFDM is a reliable standard with none of the surprises that have plagued 8-VSB in its transition from the laboratory to the real world. Even if 8-VSB can eventually be "fixed," which is at best a questionable proposition, an NBC representative has estimated that it will take five years before 8-VSB can deliver a reliable signal in urban areas.<sup>42</sup> For consumers and broadcasters alike, the Commission's decision to "stay the course" with a modulation standard that will not be workable for at least five years, if at all, is perplexing. More perplexing yet is the likelihood that even if incremental improvements are made to 8-VSB, its performance will still fall short of that offered by COFDM today.

Finally, the Commission should keep in mind that it (and broadcasters) cannot afford to stake the future of DTV on the assumption that 8-VSB receiver technology will improve with time. First impressions weigh heavily with viewers, and if their first impression is that DTV does not work in urban areas, it is unlikely that they will consider investing again in a DTV receiver anytime soon. As a result, even if 8-VSB receiver technology does eventually improve, it will be a long time before it is able to overcome the negative perception of DTV that will be created in the next few years by exclusive reliance on 8-VSB technology.

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are well underway to seeing the benefits of digital video technology made available to all Americans -- not just those who subscribe to DBS, cable, or other pay services.").

<sup>&</sup>lt;sup>41</sup> Bill McConnell, <u>The Real Digital Divide</u>, Broadcasting & Cable (Feb. 14, 2000), at 19.

<sup>&</sup>lt;sup>42</sup> Id. at 22.

#### B. The Costs of Allowing Broadcasters the Flexibility to Use COFDM Will Be Minimal

The consumer electronics industry and other parties with a vested interest in 8-VSB technology have put forth a parade of horribles that they claim will result if the Commission authorizes broadcasters to use COFDM. Not only are these claims unavailing for the reasons discussed below, but the Commission must consider the source of these arguments. The consumer electronics industry, unlike the Commission, is under no obligation to ensure that the benefits of digital broadcasting are available to all Americans. Whether Hispanic and other minority viewers that cannot afford cable or satellite service receive DTV is currently of little concern to equipment manufacturers, as these are not the affluent consumers from which manufacturers intend to garner their digital profits in the early years of DTV. If these minority viewers continue to purchase analog television sets because there is no viable digital alternative, manufacturers will hardly be disappointed.

#### 1. Allowing COFDM Will Not Delay the DTV Transition

The most frequent attack levied against those advocating the use of COFDM is that it will delay the DTV transition. The Commission also cited the fear of delay as one of the reasons for rejecting the Sinclair Petition. The obvious response to such an argument is that nothing will delay the DTV transition more than retaining the 8-VSB modulation standard. The 20 percent of all households, and 40 percent of Hispanic households, that rely on over-the-air television reception are unlikely to purchase DTV sets knowing that they will have to purchase and install outdoor antennas as well. Even if these viewers were willing, many will not be able to afford or be able to install an outdoor antenna. The DTV transition will go absolutely nowhere if the

<sup>&</sup>lt;sup>43</sup> Sinclair Petition Ruling at 3.

Commission requires broadcasters to adhere to a modulation standard that cannot deliver a reliable signal in urban environments.

Nor does a lack of COFDM-compatible equipment support the argument that COFDM will delay the DTV transition. Countries around the world have adopted COFDM as their DTV modulation standard. Thus, consumer electronics manufacturers already have an enormous amount of knowledge regarding the manufacture and operation of COFDM receivers.

The consumer electronics industry, however, argues that any reconsideration of the DTV modulation standard will create uncertainty in the marketplace and dissuade consumers from purchasing DTV sets. 44 This argument comes far too late in the day. The "secret" that the present DTV standard cannot provide a reliable signal has been well-documented in the press. Further, the Commission's consideration of 8-VSB's failures in this very proceeding negates this argument. The DTV standard is in question and consumers know about it. The task at hand is to change the standard, not to try to cover up the current standard's failures. By acting swiftly and decisively to remedy a well-known flaw in the existing DTV standard, the Commission will not be creating uncertainty, but will instead be sending a clear signal that the flaw has been fixed and that the government is committed to making DTV work for all Americans.

2. Retaining 8-VSB as the Exclusive Modulation Standard in an Effort to "Stay the Course" Sacrifices Service to Tens of Millions of Viewers While Accomplishing Nothing to Protect the Investments of the Few Early Adopters of DTV

Advocates of 8-VSB also claim that allowing broadcasters to use COFDM technology will harm those consumers who have already purchased DTV sets compatible with only 8-VSB technology. This argument fails on two grounds. First, according to the CEA, only a miniscule

34,000 DTV sets sold to date include the electronics necessary to receive an 8-VSB DTV signal. The rest of the "DTV" sets sold to date are merely display devices that must be coupled with a separate set-top box or other electronics to receive an 8-VSB DTV signal. That separate set-top box could just as easily be a COFDM unit. Moreover, since everyone, including the manufacturers, concedes that current 8-VSB receivers are unable to cope with dynamic multipath interference, most of these 34,000 8-VSB receivers will need to be replaced anyway. These early adopters would certainly prefer to replace their 8-VSB sets with COFDM units that entirely solve the reception problem rather than be forced to buy a second and third generation of 8-VSB receivers based on manufacturer promises of incremental improvements in reception quality.

Second, even if sales of DTV sets to date were significant, the Commission cannot impede technological improvements in service merely to prevent existing equipment from becoming obsolete. For example, when the Commission added an additional 70 UHF channels for commercial use in 1952,<sup>47</sup> American consumers already owned approximately 21 million VHF sets that were incapable of receiving these UHF signals.<sup>48</sup> However, seeing the need for a greater diversity of television program sources, the Commission made every television set in the United States obsolete overnight in order to ensure that every community could have access to

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<sup>&</sup>lt;sup>44</sup> CEA Opposition at 16 ("[T]he uncertainty fostered by the Sinclair Petition understandably will dampen any decisions by those who have not purchased equipment.").

<sup>&</sup>lt;sup>45</sup> CEA Reports Strong DTV Sales in Q1 2000, DTV Business (May 1, 2000).

<sup>&</sup>lt;sup>46</sup> In opposing the Sinclair Petition, CEA misleadingly claimed that "300 million dollars of DTV consumer equipment [has been] sold to date." CEA Opposition at 16. Given its recent admission that only a fraction of the DTV sets sold to date are actually capable of receiving an 8-VSB signal, any claims made by or figures provided by CEA used to support 8-VSB must be carefully scrutinized.

<sup>&</sup>lt;sup>47</sup> Sixth Report and Order, 41 FCC 148 (1952).

more and better television service. Like the addition of UHF channels in 1952, the addition of COFDM to the DTV standard will ensure a higher and more diverse level of broadcast service to Americans as a whole. Had the Commission "stayed the course" in 1952, broadcast networks like ABC, Fox, WB, and UPN could never have come into existence, and Spanish-language program sources like Univision would not be possible. Over the years, the Commission's best moments have come from embracing technological advances, and its worst moments have come from ignoring such advances on the theory that existing service is "good enough." The 8-VSB standard is not "good enough" to carry the benefits of the digital revolution to all members of the public, and the Communications Act does not give the Commission the discretion to choose which segments of the public should be ignored in the implementation of DTV.

#### 3. The Costs to Broadcasters of Converting to COFDM Will Be Minimal

Univision has never advocated mandatory use of COFDM technology, although the mounting concern over 8-VSB's flaws might justify such an approach. Rather, Univision urges the Commission to allow broadcasters to transmit their DTV signals using the modulation technology they find most appropriate for their market. The costs of switching to COFDM will therefore be borne voluntarily by broadcasters who would far rather invest in changing to COFDM than continue to operate a very expensive DTV facility that few viewers in their market can actually receive. Further, it is Univision's understanding that the cost of converting an 8-VSB facility to COFDM is relatively minor. In any event, by moving swiftly to permit use of COFDM, the Commission can eliminate this cost for many broadcasters entirely, particularly those in smaller markets, who have yet to construct their digital facilities.

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<sup>&</sup>lt;sup>48</sup> 1953 Telecasting Yearbook (1953), at 45.

## 4. The Addition of COFDM to the DTV Modulation Standard Will Not Impede the Development of DTV

In rejecting the Sinclair Petition, the Commission relied heavily on its previous findings in the Fourth Report and Order that allowing more than one DTV modulation technology would lead to compatibility problems and create situations in which consumers who buy DTV sets in one region will not be able to use those sets when they move to another region. However, this problem could be eliminated, as it eventually was for the competing AM stereo formats, by producing receivers capable of receiving either type of signal. The incremental increase in cost for such receivers would be slight, and would be vastly preferable to forcing consumers to use 8-VSB receivers that only work in certain markets anyway, not because of format incompatibilities, but because of 8-VSB's urban reception problems. If the Commission is concerned about consumers buying a television in one region and finding that it will not work when they move to a new area, it options are to encourage production of television sets than can receive both standards, or to replace 8-VSB entirely, since we already know that it does not work reliably in many market areas.

Allowing broadcasters the flexibility to use COFDM will breathe much-needed life into the DTV standard. If broadcasters have no option but to use 8-VSB, and further research indicates that 8-VSB's flaws cannot be fixed, the transition to DTV will hit a brick wall with a very loud and very public thud. Altering the modulation standard at that point would be worse than starting the entire DTV process from scratch, as members of the public will have already spent their DTV funds and lost faith in the venture as they throw away their DTV sets. However, if broadcasters have the flexibility of quietly shifting over to COFDM should 8-VSB continue to fall short, the momentum of the DTV transition will be maintained, and the public may never even be aware (or care) about the shift in modulation technology.

# V. Allowing Broadcasters to Use COFDM Will Promote Other Commission Goals in Addition to Service to Minority Communities

Providing DTV service to minority communities in urban areas is not the only advantage of COFDM technology. As discussed below, COFDM will also (1) allow greater service to rural areas through the use of on-channel translators; (2) speed the delivery of new services in the recaptured Channels 60-69 band; and (3) enable broadcasters to compete on equal terms in the digital marketplace.

# A. COFDM Technology Allows for the Use of On-Channel Translators, Thereby Allowing Greater Service to Rural Areas

Even if COFDM and 8-VSB actually provided equal ease of reception, COFDM still has a critical advantage over 8-VSB -- the ability to use on-channel translators to provide DTV service to a greater portion of a broadcaster's market. <sup>49</sup> NTSC translators currently provide analog television service to millions of viewers in rural areas. Translators rebroadcast the programming of full service television stations to communities that cannot receive the signals of those stations due to distance or terrain obstructions. However, in order to avoid interfering with the originating station, NTSC translators must operate on a different channel than the originating station. Thus, the translators for a given full service station currently operate on a number of different channels, utilizing valuable spectrum in the process.

Like NTSC technology, 8-VSB requires that a similar multitude of channels be used by translators in order to avoid interfering with the originating station. Otherwise, the signal of the translator will create a form of multipath interference when a DTV set receives signals from both the full service station and the translator on the same channel. However, because of the

<sup>&</sup>lt;sup>49</sup> Jon Lafayette and Doug Halonen, <u>New DTV Problems; Translator Issues Cited</u>, Electronic Media (May 1, 2000), at 1.

increased number of stations on the air during the DTV transition, as well as the reduction in broadcast spectrum resulting from the Commission's effort to limit broadcasters to channels 2 through 51, there is no longer room in the broadcast spectrum for many of the existing translators. As a result, even if 8-VSB has excellent coverage characteristics in rural areas, the loss of many translators will reduce the overall level of broadcast service in such areas.

However, because of its ability to overcome multipath interference, COFDM allows the use of on-channel translators. Thus, rather than a half dozen translators operating on a half dozen valuable channels (which may soon no longer be available for use by translators), they all could potentially operate on the same channel as the originating station. This would not only allow broadcasters to effectively provide DTV service to rural and mountainous regions, but the increased spectrum efficiency could potentially free up significant chunks of spectrum for alternate uses.

#### B. Allowing Use of COFDM Will Speed the DTV Transition and Expedite New Services in the Channels 60-69 Band

The benefits of freeing up spectrum through the use of on-channel COFDM translators are more than theoretical. One of the problems faced by the Commission in the DTV transition is the impossibility of fitting the analog and digital operations of all television broadcasters in the Commission's selected core channels of 2 through 51. As a result, many television stations have been assigned an analog or digital channel above 51. In some cases, such as Univision's station WGBO in the Chicago market, both the station's analog and digital operations are on channels above 51. As a result, such stations will have no choice but to move to a third channel within the core at the end of the DTV transition when former analog channels become available.

Chairman Kennard has recently encouraged broadcasters occupying channels 60-69 to vacate those channels as soon as possible to make way for new technologies proposed for these frequencies. Specifically, Chairman Kennard stated that:

This is prime spectrum that can jumpstart wireless competition to cable modems and DSL. But, while much of this spectrum currently is unoccupied, TV broadcasters will continue to use much of the band until the end of the transition to digital television. That is, unless we let the market work and permit negotiations between the auction winners and the incumbent broadcasters so that broadcasters complete their transition to digital sooner rather than later . . . . But even more may need to be done to clear this band to make it useable everywhere in the near term. <sup>50</sup>

Being located in a spectrum-tight market like Chicago, WGBO currently has no options that would allow it to leave this portion of the spectrum other than to shut down and leave local Hispanic viewers without their major source of news and information. This is obviously not an acceptable option. However, to the extent that COFDM allows for more efficient spectrum use through such advances as on-channel translators, it may be possible to make core channels available to stations like WGBO sooner rather than later. If so, implementation of new services on the channels above 51 could be expedited, and the value of that spectrum at auction would be increased significantly, thereby generating greater auction revenues for the Commission. Even if this were not the case, however, COFDM's superior ability to allow easy and certain reception in difficult conditions will speed consumer acceptance of DTV, thereby expediting the DTV transition and the movement of stations into the core channels at the end of that transition. In contrast, continued reliance on 8-VSB will leave the channels above 51 cluttered with broadcast stations for a long time to come.

<sup>&</sup>lt;sup>50</sup> Address by William E. Kennard, Chairman, FCC, to the Cellular Telecommunications Industry Association (February 28, 2000).

#### C. COFDM Will Allow Broadcasters to Compete in the Digital Marketplace

Recently, Chairman Kennard keenly observed in a speech at the NAB Convention that:

All of broadcasting's competitors are going or have gone digital. Cable, satellite radio, satellite TV, and the whole alphabet soup of promising new broadband technologies: Multipoint Distribution System (MDS), Local Multipoint Distribution System (LMDS), 3<sup>rd</sup> Generation Personal Communication System (PCS), Digital Subscriber Line (DSL). Americans have awakened to the power and functionality of digital; they want more and they are never going back to the analog-only world. Analog is over. Delay is simply not an option. Resistance is futile.<sup>52</sup>

Univision wholeheartedly agrees with Chairman Kennard's observations about the need for broadcasters to "go digital." However, broadcasters' competitors are not handcuffed to a Commission-mandated standard that simply does not work in urban areas. In fact, one of the competitors mentioned by Chairman Kennard, MDS providers, recently asked for and received permission from the Commission to use Othogonal Frequency Division Multiplexing ("OFDM") technology. In authorizing MDS providers to use OFDM, the Commission acknowledged the findings of commenters that OFDM can achieve high data rates in severe multipath conditions. Broadcasters must be concerned about their future in the digital marketplace when their "competitors" are allowed to take advantage of new technologies, while similar attempts by broadcasters are met with scorn and baseless accusations that it is all a ploy to delay the DTV transition. Far from a ploy to delay the transition, Univision's Petition and its comments herein

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<sup>&</sup>lt;sup>51</sup> Dick Wiley, <u>Wireless Providers to UHF Stations: Please Go Away</u>, Communications Today (April 3, 2000).

<sup>&</sup>lt;sup>52</sup> Remarks of William E. Kennard, Chairman, FCC, before the National Association of Broadcasters (April 11, 2000).

<sup>&</sup>lt;sup>53</sup> See Request For Declaratory Ruling on the Use of Orthogonal Frequency Division Multiplexing Modulation by Multipoint Distribution Service and Instructional Television Fixed Service Stations, Declaratory Ruling and Order, 14 FCC Rcd 4121 (Mass Media Bureau 1999).

are an effort to ensure that there is a DTV transition -- not just for some Americans, but for all Americans.

#### Conclusion

In light of the foregoing, Univision urges the Commission to consider the impact that its decision to maintain exclusive reliance on 8-VSB modulation technology will have on America's Hispanic and other minority communities residing predominantly in urban areas, and to allow broadcasters the flexibility to utilize COFDM. Only by acting swiftly to authorize the use of COFDM can the Commission make the benefits of DTV available to all segments of the population while expediting the DTV transition.

Respectfully submitted,

UNIVISION COMMUNICATIONS INC.

By:

Scott R. Flick

Lara Strayer Meisner David S. Konczal

Its Attorneys

SHAW PITTMAN 2001 Pennsylvania Avenue, N.W. Suite 400 Washington, D.C. 20006 (202) 659-3494

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